

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

MO-G640000

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

All Outfalls - Water Treatment Plants Filter Backwash

Water treatment plant filter backwash water and solids and allows operation of no-discharge sludge holding systems. Land application of water treatment plant sludge. This permit is not applicable to plants required to dechlorinate.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

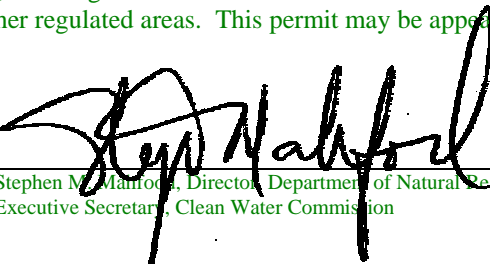
September 5, 2003

Effective Date

September 4, 2008

Expiration Date

MO 780-1481 (7-94)



Stephen M. Manfred, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Jim Hull, Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 5	
					PERMIT NUMBER MO-G640000	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>All Backwash Outfalls Water Treatment Plant</u>						
Flow	MGD	*		*	*	24 hr. estimate
Settleable Solids	mL/L	1.0			once/year	grab
pH - Units	SU	**		**	once/year	grab
Total Residual Chlorine	mg/L	1.0		1.0	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Permittee shall keep records of the volume of all discharges. Pumping records can be used to calculate the volume of discharge.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.5 pH units.

NOTE: See requirement section on next page for analytical and reporting requirements for land application of water treatment plant sludges.

APPLICABILITY

This permit authorizes water treatment plant discharges of filter backwash water and treated sludge blowdown to waters of the State of Missouri and authorizes operation of no-discharge settling basins, holding basins, sludge lagoons, and land application sites for water treatment sludges, and residuals. It is not applicable to water treatment plants that are required to dechlorinate. They must apply for an individual permit.

1. If at any time the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner of a water treatment plant to apply for an individual State Operating Permit, the Department may do so.
2. If at any time the owner of a water treatment plant desires to apply for an individual State Operating Permit, the owner may do so.
3. This permit does not apply to water treatment plants producing water for any purpose other than human consumption.
4. This permit does not apply to the discharge of any water other than the filter backwash water and treated sludge blowdown.

SPECIAL CONDITIONS

1. Water Quality Standards

- a. Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- b. General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

SPECIAL CONDITIONS (continued)

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

REQUIREMENTS

1. Land application of sludge shall not exceed the most restrictive of the following criteria:
 - (a) Crop nitrogen fertilizer requirements
 - (b) Effective Neutralizing Material (ENM) amount to raise soil pH per soil test recommendations for crop needs
 - (c) Metal limitations in University Extension publication WQ 425, Tables 3 & 4
 - (d) Pesticide amounts not to exceed 10 percent of the application rate on the pesticide label
2. Sludges land applied shall be tested at least once per year during land application periods for Total Kjeldahl Nitrogen, Arsenic, Aluminum, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc. Also, test for any pesticides or other significant contaminants present in the raw water supply. Report all results as mg/Kg on dry weight basis.
3. In addition, lime sludge that is land applied shall be tested at least once per year for Effective Neutralizing Material (ENM) per MU Guide G9102, Liming Missouri Soils and G9107, MO Limestone Quality: What is ENM?, published by the University of Missouri Extension Service.
4. Soil tests shall be conducted at least once per year before sludge application, during each year when water treatment plant sludge is to be land applied.
5. Sludge tests and soil tests shall be maintained by the permittee for at least five years.
6. Lime sludge shall not be land applied if the soil pH exceeds pH 7.5 (salt based test) or pH 8.0 (water based test).

REQUIREMENTS (continued)

7. Land application of sludges containing aluminum additives (alum sludge, lime/alum sludge, etc.) shall meet the following additional requirements:
 - (a) During years that sludge is land applied, sludge and soil must be tested once per year for total aluminum concentration on a dry weight basis and for soil pH.
 - (b) Land application sites shall be maintained at a soil pH between pH 5.5 to 7.5 based on the salt based pH test or 6.0 to 8.0 for water based test.
 - (c) Land application of sludge shall not exceed cumulative aluminum loadings of 4,000 pounds aluminum per acre above soil background levels. Background soil levels of aluminum shall be based on soil testing of the site prior to sludge application or testing of similar soils in the immediate vicinity.
 - (d) Permittees do not need to keep records of cumulative aluminum loading, if the sludge contains less than 40,000 ppm total aluminum on a dry weight basis and sludge application rates do not exceed 2 dry tons per acre per year (320 cubic feet/acre at 20% solids content).
 - (e) Sludge that contains more than 40,000 ppm total aluminum on a dry weight basis may be applied to land with established vegetation, or to land without established vegetation but with less than a 5% slope, or shall be incorporated into the ground by discing, plowing, or equivalent methods within two weeks after land application. Under no circumstances shall application result in sludge entering waters of the state.
8. The department may require the submittal of a site-specific sludge management plan where deemed appropriate to protect the environment.
9. An annual report shall be submitted by January 28th, and shall be for the reporting period of January 1st to December 31st. If there was no discharge of wastewater during the year, the annual report shall state "no-discharge". The annual report shall also contain a summary of sludge disposal activities, including amount of sludge generated, amount stored, amount disposed and disposal method. If sludge is land applied, indicate the number of acres used, the application rate in dry tons/acre, the soil pH, and the pounds of ENM per ton of sludge. If sludge containing aluminum, metals, or pesticides is land applied, also indicate the concentration in sludge and soil in ppm dry weight for each field, including the background soil concentration.

TERMINATION OF PERMIT

If activities covered by this permit have ceased and this permit no longer applies, the permittee shall request termination of this permit. The permittee shall submit Form H, Termination of a General Permit.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.